

REMARKS

Claims 1-24 are canceled. New claims 25-57 are added. No claims are amended. Claims 25-57 are now pending in the application. Each issue raised in the Office Action mailed April 9, 2008 is addressed hereinafter.

I. ISSUES NOT RELATING TO PRIOR ART

A. 35 U.S.C. § 101 – CLAIMS 13-23

Claims 13-23 are rejected under 35 U.S.C. § 101 for allegedly failing to establish a statutory category of invention. The rejection is moot as these claims have been canceled. The newly added means-plus-function claims are patentable under 101 for reasons given hereinafter.

In rejecting previous Claim 23, the Office appears to contend that the “means” elements in the means-plus-function claims are software alone, that the apparatus is a mere interrelationship of software elements, and that therefore the claims are non-statutory. However, the Office cites no case law to support its interpretation of Section 101. The statute does not define “machine” in any restrictive sense and any computing apparatus that includes software elements is necessarily a statutory machine. Further, the Office’s interpretation of the claims is wrong, because Applicant’s specification is replete with examples of structure other than software that can be used. See, e.g., paragraphs [76] (last three sentences) and [0028]. For example, ASICs, FPGAs, etc., can be created to perform such functions as cited in Claim 23. Consequently, one of ordinary skill in the computing arts would not reasonably interpret the means and the apparatus of the means-plus-function claims, whose functions are to be executed by one or more processors or other hardware means, as software alone or mere interrelationship of software elements. Accordingly, Applicant respectfully submits that the means-plus-function claims in the application are directed to patentable subject matter.

B. 35 U.S.C. § 101 - CLAIMS 1, 4-11, 13 AND 16-24

Claims 1, 4-11, 13 and 16-24 are rejected under 35 U.S.C. § 101 for allegedly failing to provide a useful, concrete and tangible result. The rejection is moot as these claims have been canceled.

## II. ISSUES RELATING TO PRIOR ART

### A. CLAIMS 1, 5, 6, 13, 17, 18, 23 AND 24

Claims 1, 5, 6, 13, 17, 18, 23 and 24 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Applicant's Specification, pages 1-6 (hereinafter "*Specification*"). The rejection to these claims is moot as these claims have been canceled. The newly added claims are patentable with respect to Applicant's Specification, pages 1-6, for the following reasons.

As a preliminary matter, Applicant's own specification cannot qualify as a reference under 102(b) because pages 1-6 have not been patented, published, in use, or on sale more than one year before filing. In fact, it is impossible for Applicant's specification to qualify as a reference as such.

The Office Action asserts that Specification, pages 1-6 is "Applicants Admitted Prior Art." This assertion is erroneous. Nothing in the application admits that these passages are prior art. Indeed, as Applicant explicitly states on page 1, "The approaches described in this section could be pursued, but are **not necessarily approaches that have been previously conceived or pursued**. Therefore, **unless otherwise indicated herein**, the approaches described in this section are **not prior art** to the claims in this application and are not admitted to be prior art by inclusion in this section" (emphasis added). The section as referred to in the above quoted language contains pages 1-6 cited by the Office Action. Applicant's above statement indicates a clear intent that is inconsistent with an admission that the cited pages are prior art. For this reason alone, the rejection is unsupported and should be withdrawn.

Furthermore, each of the independent claims in this application recites a number of determining steps and creating encapsulation and decapsulation chains in response to these determining steps, which are not described in the cited paragraph of *Specification*.

For all the reasons given above, the claims in this application are patentable with respect to *Specification*.

B. CLAIMS 1-3, 5, 6, 11-15, 17, 18, 23 AND 24

Claims 1-3, 5, 6, 11-15, 17, 18, 23 and 24 are rejected under 35 U.S.C. § 102 (e) as allegedly being anticipated by Conta et al., U.S. Patent Pub. No. 2005/0086367 A1 (hereinafter *Conta*). The rejection is moot as these claims have been canceled. Each of the newly added claims is patentable over *Conta* for reasons given hereinafter.

**Claim 25**

Claim 25 recites, *inter alia*:

determining whether a new encapsulation chain should be created, on a network element, for a particular virtual interface;  
wherein determining whether a new encapsulation chain should be created comprises: **determining** whether at least one physical port of a particular card of the network element (a) is configured to send data packets of a type that would be produced by an encapsulation chain for the particular virtual interface and (b) can send data packets toward a destination associated with the particular virtual interface;  
determining whether a new decapsulation chain should be created, on the network element, for the particular virtual interface;  
wherein determining whether a new decapsulation chain should be created comprises: **determining** whether at least one physical port of a particular card of the network element is configured to receive data packets of a type that would be processed by a decapsulation chain for the particular virtual interface;  
**in response to determining** that a new encapsulation chain should be created, on the network element, for the particular virtual interface, **creating**, on the network element, a new encapsulation chain for the particular virtual interface; and  
**in response to determining** that a new decapsulation chain should be created, on the network element, for the particular virtual interface, **creating**, on the network element, a new decapsulation chain for the particular virtual interface.  
(Emphasis added)

*Conta* fails to disclose a number of features of Claim 25. *Conta* discloses a method that uses a set of tunnel interfaces (T1 ... Tm in FIG. 1) to map input streams to output streams on

both the transmit interface side (FIG. 2) of a tunnel and the receive interface side of the tunnel (FIG. 3). *Conta* is devoid of a virtual interface for which an encapsulation chain and a decapsulation chain is created in response to determining that the encapsulation chain and the decapsulation chain should be created for the virtual interface, as featured in Claim 25.

The Office Action apparently analogizes a tunnel interface in *Conta* to the claimed virtual interface. This is a mischaracterization of *Conta*. In *Conta*, a tunnel is split into two sides: a tunnel interface on the transmit interface side (i.e., where packets to be tunneled are transmitted into the tunnel), and a tunnel interface on the receive interface side (i.e., where the packets are to be tunneled out of the tunnel). According to *Conta*, the tunnel interface on the transmit interface side of such a tunnel is only equipped with an encapsulation engine but without a decapsulation engine, while the tunnel interface on the receiving interface side of the tunnel is only equipped with a decapsulation engine but without an encapsulation engine. While Claim 25 features two steps of creating a new encapsulation chain and creating a new decapsulation chain for the same virtual interface, the transmit interface side of a tunnel and the receive interface side of the same tunnel, in *Conta*, are not on the same network element but rather on two different nodes separated by a network (*see, e.g.*, paragraphs 0006 and 0007 of *Conta*).

As there is no need for a tunnel interface on a network element to have both an encapsulation engine and a decapsulation engine, *Conta* cannot and does not disclose determining whether an encapsulation chain should be created on a network element for a particular virtual interface and determining whether a decapsulation chain should be created on the network for the particular virtual interface, as featured in Claim 25, even under the invalid analogy that a tunnel interface of *Conta* is the claimed particular virtual interface.

The Office Action also asserts that the encapsulation engines and the decapsulation engines disclosed in paragraphs 54-69 of *Conta* are **instantiated**. Applicant cannot locate in the reference any passage in which the alleged instantiation of the encapsulation engines and the decapsulation engines is described, as asserted by the Office Action. Clarification and evidentiary support for the Office Action's assertions is respectfully requested.

Based on the foregoing, Claim 25 is patentable over *Conta*. Allowance of Claim 25 is respectfully requested.

**Claims 36, 46, 47 and 57**

Claims 36, 46, 47 and 57 each recite similar features as those discussed above with respect to Claim 25. Therefore, Claims 36, 46, 47 and 57 are patentable for at least the same reasons discussed above as to Claim 25.

**Claims 26-35, 37-45, and 48-56**

Claims 26-35, 37-45, and 48-56 depend from, and hence, incorporate all of the limitations of Claim 25, 36, 46, 47 or 57. These claims also recite further limitations that render them patentable over the cited references. Applicant submits that Claims 26-35, 37-45, and 48-56 are patentable for at least the reasons given above in connection with Claim 25, 36, 46, 47 or 57.

**C. CLAIMS 10 AND 22**

Claims 10 and 22 are rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Conta et al.* (U.S. Patent Pub. No. 2005/0086367 A1). The rejection is moot as these claims have been canceled.

**D. CLAIMS 4, 7-9 AND 16-21**

Claims 4, 7-9 and 16-21 are rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over *Conta* in view of *Tuniman et al.*, U.S. Patent No. 6,507,874 (hereinafter *Tuniman*). The rejection is moot as these claims have been canceled.

### III. CONCLUSIONS & MISCELLANEOUS

For the reasons set forth above, all of the pending claims are now in condition for allowance. The Examiner is respectfully requested to contact the undersigned by telephone relating to any issue that would advance examination of the present application.

A petition for extension of time, to the extent necessary to make this reply timely filed, is hereby made. If applicable, a check for the petition for extension of time fee and other applicable fees is enclosed herewith. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,

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